Orthodontics

The Division of Dental Hygiene and the Departments of Endodontics, Orthodontics, and Restorative Dentistry offer programs of advanced study leading to the degree of master of science. The department of oral and maxillofacial surgery offers one four-year residency. A general practice residency is also an option. Continuing education courses are offered throughout the year. Detailed information concerning admission requirements, courses of study, etc., may be obtained from:

the Office of the Associate Dean for Academic and Postdoctoral Affairs
WVU School of Dentistry
P.O. Box 9402
Morgantown, WV 26506

Faculty
Chair
• Peter Ngan - D.M.D.

Degree Offered
• Master of Science

General Information
The School of Dentistry and its Department of Orthodontics offer a program of advanced study and clinical training leading to the degree of Master of Science. The program requires a minimum of thirty-four months (three academic years and two summers) of full-time residency in the School of Dentistry. It is designed to qualify dentists for careers in orthodontic clinical practice, teaching, and research.

A stipend plus tuition waiver will be provided for graduate students in Orthodontics at the end of the second year for summer session and fall/spring semesters. Special fees are not covered by the tuition waiver. You must pay special fees each term/semester.

Inquiries concerning this program should be directed to the Office of Academic and Postdoctoral Affairs. Applications will be processed in the School of Dentistry. Applicants approved for admission to the program will be notified soon after December 1.

This program is accredited by the Commission on Dental Accreditation of the American Dental Association. For details about the faculty, publications, and alumni information, please visit the Department website at http://dentistry.hsc.wvu.edu/Academic-Programs/Graduate-Programs/Master-of-Science-in-Orthodontics.

Program Goals
The postgraduate program is designed to develop skilled practitioners who can easily transition into and manage a busy orthodontic practice. The goal of this program is to teach a variety of treatment mechanics that are scientifically valid, and let the residents make choices based on treatment needed on a case-by-case basis. Clinical experiences are diverse, including cleft lip and palate and orthognathic surgery cases. An original master’s thesis project is required and is designed to obtain results suitable for publication in a reputable dental journal. The curriculum focuses on didactic and clinical materials to prepare residents in taking the American Board of Orthodontics (ABO) Examinations. Classes pertaining to the written board are given throughout the three-year program. It is a requirement for every third year resident to take and pass the written component of the ABO, and all residents are encouraged to complete the board certification process.

Graduate Courses
Advanced Orthodontic Mechanics: A continuation of the previous course involving more difficult case types and introducing more sophisticated appliance therapy.

Advanced Topics: Investigation of advanced topics not covered in regularly scheduled courses.

Advanced Topics: Biomedical Sciences Module Series: The Biomedical Sciences Module series has been designed as an online course for students enrolled in the advanced education programs in the WVU School of Dentistry. Four modules are planned. They include pharmacology, physiology/biochemistry, anatomy/histology/embryology, and microbiology/immunology/genetics.

The content of these modules focuses on the clinical application of each of the biomedical sciences of dentistry. Cases will be used to integrate theory and practice. Students will attend a virtual classroom by viewing online lectures, reading prescribed materials, and interacting with faculty and classmates through an online discussion forum.
Applied Biostatistics for Health: Statistical models, distributions, probability, random variables, tests of hypotheses, confidence intervals, regression, correlation, transformations, F and Chi-square distributions, analysis of variance, and multiple comparisons.

Biomechanics: Design and function of the teeth and their surrounding structures, and response of these tissues to orthodontic procedures.


Craniofacial Growth and Maturation: The current concepts of craniofacial growth and maturation are presented and integrated for application to clinical problems.

Directed Study: Directed study, reading, and/or research.

Graduate Seminar: It is anticipated that each graduate student will present at least one seminar to the assembled faculty and graduate student body of program.

Growth and Development: Seminar course on normal and abnormal growth of the human head and its application to orthodontics.

Independent Study: Faculty supervised study of topics not available through regular course offerings.

Orthodontic Clinic: Clinical treatment of selected patients.

Orthodontic Diagnosis: Seminar class on technique of patient examination, acquiring diagnostic records.


Orthodontic Mechanics: Seminar and laboratory course on basic orthodontic mechanical properties.

Orthodontic Seminar: Discussions including all branches of dental science, with special emphasis on the orthodontic interest. Assigned topics and articles in the literature are discussed.

Orthodontic Technique: Laboratory course in techniques related to fabrication and manipulation of orthodontic appliances and wires.

Research: Research activities leading to thesis, problem report, research paper, or equivalent scholarly project or a dissertation.

Seminar: Seminars arranged for advanced graduate students.

Special Studies in Oral Pathology: Advanced study of local and systemic disease processes affecting oral structures through seminars, assignment of specific topics, or research activities.

Special Topics: A study of contemporary topics selected from recent developments in the field.

Teaching Practicum: Supervised practice in the college teaching of dentistry.